Title (en)
SYSTEMS AND METHODS FOR DIGITAL PROCESSING OF SATELLITE COMMUNICATIONS DATA

Title (de)
SYSTEME UND VERFAHREN ZUR DIGITALEN VERARBEITUNG VON SATELLITENKOMMUNIKATIONSDATEN

Title (fr)
SYSTEMES ET PROCEDES DE TRAITEMENT NUMERIQUE DE DONNEES DE COMMUNICATIONS SATELLITE

Publication
EP 1590906 A4 20091202 (EN)

Application
EP 04706088 A 20040128

Priority
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• US 44351703 P 20030128
• US 44366403 P 20030129

Abstract (en)
[origin: WO2004073229A2] A digital payload [202, 300, 500, 600] for processing a sub-band spectrum received on an uplink beam [204] at a communications satellite [200, 1100] includes a digital channelizer [302], a digital switch matrix [304] and a digital combiner [306]. The digital channelizer divides the sub-band spectrum into a plurality of frequency slices [310] that can be routed by the digital switch matrix [304] to any of a number of receiving ports [312]. A digital combiner [306] receives the frequency slices and re-assembles them to form one or more output sub-bands for transmission on an output beam [216] of the communications satellite. The digital payload may also include an embeddable digital regeneration module [308] configured to demodulate some or all of the sub-band spectrum to extract a digital bitstream therefrom. The digital bitstream may be processed to implement code-based multiplexing, switching, access control, and other features.

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H04J 1/00

IPC 8 full level
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CPC (source: EP US)
H04B 7/18515 (2013.01 - EP US); **H04B 7/18526** (2013.01 - EP US); **H04B 7/18582** (2013.01 - EP US); **H04B 7/18584** (2013.01 - EP US); **H04B 17/40** (2015.01 - EP US)

Citation (search report)
• [X] US 6266329 B1 20010724 - LAZARIS-BRUNNER KEN [CA], et al
• [X] EP 1139584 A2 20011004 - BOEING CO [US]
• [X] EP 0501690 A2 19920902 - BRITISH AEROSPACE [GB]
• See references of WO 2004073229A2

Designated contracting state (EPC)
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DOCDB simple family (publication)
WO 2004073229 A2 20040826; **WO 2004073229 A3 20041223**; CA 2514959 A1 20040826; CA 2514959 C 20120501; EP 1590906 A2 20051102; EP 1590906 A4 20091202; EP 1590906 B1 20121003; ES 2396609 T3 20130222; JP 2006516867 A 20060706; JP 4667364 B2 20110413; US 2004185775 A1 20040923; US 2009247179 A1 20091001; US 2014226555 A1 20140814; US 7542716 B2 20090602; US 8064920 B2 20111122; US 9337918 B2 20160510

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US 2004002553 W 20040128; CA 2514959 A 20040128; EP 04706088 A 20040128; ES 04706088 T 20040128; JP 2006503156 A 20040128; US 201414255456 A 20140417; US 40035709 A 20090309; US 76700004 A 20040128